\_\_\_\_\_\_

Sequence Listing was accepted.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: Durreshwar Anjum

Timestamp: [year=2009; month=4; day=6; hr=12; min=57; sec=46; ms=460; ]

\_\_\_\_\_\_

## Validated By CRFValidator v 1.0.3

Application No: 10589029 Version No: 1.0

Input Set:

Output Set:

**Started:** 2009-04-06 11:23:04.767 **Finished:** 2009-04-06 11:23:06.657

**Elapsed:** 0 hr(s) 0 min(s) 1 sec(s) 890 ms

Total Warnings: 17
Total Errors: 0

No. of SeqIDs Defined: 17

Actual SeqID Count: 17

Error code		Error Descript	ion								
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(1)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(2)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(3)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(4)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(5)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(6)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(7)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(8)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(9)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(10)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(11)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(12)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(13)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(14)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(15)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(16)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(17)

## SEQUENCE LISTING

```
<110> Lawrence, David S
<120> Protein Kinase Inhibitors and Methods for Identifying Same
<130> 96700/1165
<140> 10589029
<141> 2009-04-06
<150> US 60/544,376
<151> 2004-02-13
<150> PCT/US05/004410
<151> 2005-02-14
<160> 17
<170> PatentIn version 3.3
<210> 1
<211> 8
<212> PRT
<213> unknown
<220>
<223> sequence in protein kinase C-alpha inhibitor
<220>
<221> misc_feature
<222> (4)..(4)
<223> X= any amino acid or amino acid mimetic
<220>
<221> misc_feature
<222> (5)..(5)
<223> X= A or a Dap derivative
<220>
<221> misc_feature
<222> (6)..(6)
<223> X= F, L or I
<220>
<221> misc_feature
<222> (7)..(7)
<223> X= R or K
<220>
<221> misc_feature
<222> (8)..(8)
<223> X= A or a Dap derivative
```

<400> 1

```
Ala Arg Arg Xaa Xaa Xaa Xaa
<210> 2
<211> 9
<212> PRT
<213> unknown
<220>
<223> sequence in protein kinase C-alpha inhibitor
<220>
<221> misc_feature
<222> (5)..(5)
\langle 223 \rangle X = A or Dap
<220>
<221> misc_feature
<222> (8)..(8)
<223> X = Q or Dap
<400> 2
Ala Arg Arg Gly Xaa Leu Arg Xaa Ala
    5
<210> 3
<211> 5
<212> PRT
<213> unknown
<220>
<223> preferred consensus sequence for protein kinase C-alpha
<220>
<221> misc_feature
<222> (4)..(4)
\langle 223 \rangle X= F, L or I
<220>
<221> misc_feature
<222> (5)..(5)
\langle 223 \rangle X= R or K
<400> 3
Lys Gly Ser Xaa Xaa
<210> 4
```

<211> 6

```
<213> unknown
<220>
<223> consensus sequence for protein kinase C-beta I, protein kinase
      C-beta II and protein kinase C-gamma.
<400> 4
Arg Lys Gly Ser Phe Lys
               5
<210> 5
<211> 5
<212> PRT
<213> unknown
<220>
<223> consensus sequence for protein kinase C-delta
<220>
<221> misc_feature
<222> (1)..(1)
\langle 223 \rangle X= K or Q
<220>
<221> misc_feature
<222> (5)..(5)
<223> X= F or M
<400> 5
Xaa Gly Ser Phe Xaa
<210> 6
<211> 5
<212> PRT
<213> unknown
<220>
<223> consensus sequence for protein kinase C-epsilon
<220>
<221> misc_feature
<222> (2)..(2)
<223> X= M or K
<220>
<221> misc_feature
<222> (4)..(4)
```

<212> PRT

 $\langle 223 \rangle$  X= F or A

```
<221> misc_feature
<222> (5)..(5)
\langle 223 \rangle X= G, Y, D or F
<400> 6
Lys Xaa Ser Xaa Xaa
<210> 7
<211> 6
<212> PRT
<213> unknown
<220>
<223> consensus sequence for protein kinase C-eta
<400> 7
Arg Arg Ser Phe Arg Arg
    5
<210> 8
<211> 5
<212> PRT
<213> unknown
<220>
<223> consensus sequence for protein kinase C-zeta
<220>
<221> misc_feature
<222> (1)..(1)
<223> X = R, Q, K or E
<220>
<221> misc_feature
<222> (2)..(2)
<223> X = M or G
<220>
<221> misc_feature
<222> (4)..(5)
\langle 223 \rangle X = F or M
<400> 8
Xaa Xaa Ser Xaa Xaa
<210> 9
<211> 5
```

<220>

```
<213> unknown
<220>
<223> consensus sequence for protein kinase C-mu
<220>
<221> misc_feature
<222> (1)..(1)
<223> X= Q, K, E or M
<220>
<221> misc_feature
<222> (4)..(4)
\langle 223 \rangle X= V, M or L
<220>
<221> misc_feature
<222> (5)..(5)
<223> X= A, M or V
<400> 9
Xaa Met Ser Xaa Xaa
               5
<210> 10
<211> 7
<212> PRT
<213> unknown
<220>
<223> consensus substrate sequence for protein kinase C-alpha
<220>
<221> misc_feature
<222> (6)..(6)
\langle 223 \rangle X= F, L or I
<400> 10
Arg Arg Lys Gly Ser Xaa Arg
<210> 11
<211> 5
<212> PRT
<213> unknown
<220>
<223> sequence of peptide substrate used for PKC alpha, beta and gamma
       assays
```

<212> PRT

```
Ser Phe Arg Arg Arg
<210> 12
<211> 11
<212> PRT
<213> unknown
<220>
<223> sequence of peptide substrate for PKC epsilon and zeta assays
<400> 12
Pro Arg Lys Arg Glu Gly Ser Val Arg Arg Arg
      5
                                 10
<210> 13
<211> 9
<212> PRT
<213> unknown
<220>
<223> starting consensus sequence peptide for derivation of PKC
      inhibitors
<400> 13
Arg Arg Gln Gly Ala Phe Met Tyr Phe
<210> 14
<211> 12
<212> PRT
<213> unknown
<220>
<223> sequence of peptide substrate for synthesis of PKC isoforms
<400> 14
Pro Arg Lys Arg Gln Gly Ser Val Arg Arg Arg Val
              5
                                  10
<210> 15
<211> 6
<212> PRT
<213> unknown
<220>
<223> sequence for peptide substrate for PKC alpha, beta and gamma
      assays
```

<400> 11

```
Ser Phe Arg Arg Arg Arg
<210> 16
<211> 12
<212> PRT
<213> unknown
<220>
<223> sequence for peptide substrate for PKC delta, epsilon, theta,
      eta, iota and zeta assays
<400> 16
Pro Arg Lys Arg Glu Gly Ser Val Arg Arg Arg Val
<210> 17
<211> 9
<212> PRT
<213> unknown
<220>
<223> protein sequence in inhibitor of PKC
<220>
<221> misc_feature
<222> (5)..(5)
<223> X = a Dap derivative
<400> 17
Arg Arg Gln Gly Xaa Phe Met Tyr Phe
```

<400> 15